# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of

Improving Public Safety Communications in the 800 MHz Band

Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels

WT Docket No. 02-55; DA 03-19; DA 03-163

### SUPPLEMENTAL REPLY COMMENTS OF THE BOEING COMPANY

The Boeing Company ("Boeing"), by its attorneys, hereby files these Supplemental Reply Comments in response to the Commission's *Public Notice* in the above-captioned proceeding.<sup>1</sup> Specifically, the Commission requested comment on the supplemental filing of the so-called "Consensus Parties" (the "Supplement" or "Supplemental Filing").<sup>2</sup>

# I. THE CONSENSUS PARTIES' PLAN AS SUPPLEMENTED IS FATALLY FLAWED AND IS OPPOSED BY THE VAST MAJORITY OF LICENSEES THAT FILED SUPPLEMENTAL COMMENTS IN THIS PROCEEDING

The more than fifty Supplemental Comments that were filed in response to the Commission's most recent public notice are nearly uniform in opposing the Consensus Parties' Plan, particularly as modified by the Supplemental Filing. The vast majority of licensees are in

<sup>&</sup>lt;sup>1</sup> See Wireless Telecommunications Bureau Seeks Comment on "Supplemental Comments of the Wireless Consensus Parties" Filed in the 800 MHz Public Safety Interference Proceeding, Public Notice, WT Docket No. 02-55 DA 03-19 (rel. Jan. 3, 2003). See also Improving Public Safety Communications in the 800 MHz Band; Consolidating the 900 MHz Industrial/Land Transportation and Business Pool Channels, Order Extending Time for Filing of Comments, WT Docket No. 02-55, DA 03-163 (rel. Jan. 16, 2003).

<sup>&</sup>lt;sup>2</sup> See Supplemental Comments of the Consensus Parties, *Improving Public Safety Communications in the 800 MHz Band*, WT Docket No. 02-55 (filed Dec. 24, 2002) ("Supplemental Filing").

complete agreement, both with respect to the underlying fact – and the reasons why – the Consensus Parties' proposal cannot be salvaged, much less adopted. Other more effective and less disruptive interference mitigation proposals have been put forth by the various commenters and the Commission, which provide a much sounder basis for resolving public safety interference problems and thus deserve further examination and development.<sup>3</sup>

The Consensus Parties appear to recognize that any agreement that they might have had originally among some 800 MHz licensees has long since eroded; it has been undermined by the overly complex, unnecessary, and facially inequitable provisions that make up the unwieldy document that they have created. Faced with growing opposition, the Consensus Parties apparently hope to salvage their position by rushing the Commission to a quick decision and by making rhetorical attacks on other participants in this proceeding.

Boeing notes that four pages of one group of Consensus Party supporters' Supplemental Comments are devoted to attacking the veracity and motives of the Utilities Telecommunications Council [sic], Southern Communications Services, Inc., and Boeing?<sup>4</sup> These commenters inexplicably suggest that Boeing has not negotiated in good faith in this proceeding and Boeing's opposition to the Consensus Plan stems "solely with regard to the issue of the 1.9 GHz band."<sup>5</sup>

Even a brief review of the numerous filings that Boeing has contributed in this docket demonstrates that the Consensus Parties' claim is false. Boeing is a major operator of 800 MHz communications systems, employing its networks for industrial operations, internal communications, and the safety and security of its workforce. Throughout this proceeding,

<sup>&</sup>lt;sup>3</sup> See NPRM, ¶ 26 (proposing a rebanding of 800 MHz spectrum solely within the 800 MHz band). Although the Commission did not address the important problem of rebanding the Canadian and Mexican border regions, the Commission's proposal appeared to be preliminary in nature and subject to further discussions.

<sup>&</sup>lt;sup>4</sup> See Smartlink Communications, et al. ("the Joint Commenters") at 6-9. Boeing assumes that the Joint Commenters' discussion of the Utilities Telecommunications Council refers to the United Telecom Council.

<sup>&</sup>lt;sup>5</sup> *Id.* at 10.

Boeing has actively worked with a number of trade associations and interests groups, including engaging in dialog with Consensus Party representatives, in order to help develop a viable solution to 800 MHz interference. These efforts have produced some promising proposals, such as increased enforcement of interference mitigation rules, and/or shifting Nextel or public safety services to available spectrum at 700 MHz.

As acknowledged by the Consensus Parties, Boeing has also attempted to provide input to Nextel's so-called Consensus Plan.<sup>6</sup> The suggestions of Boeing and other parties, however, were not reflected in the Consensus Plan, or in the Supplemental Filing that is the subject of this particular round of comments. Accordingly, Boeing and other major 800 MHz licensees have been compelled to raise their objections and concerns directly to the Commission. Boeing is not acting as a spoiler in providing these comments. Quite the opposite is true. Boeing has made, and will continue to make, constructive suggestions to the Commission regarding specific measures that can be taken to resolve 800 MHz interference expediently and without excessive cost or disruption to licensees.

Boeing has also repeatedly expressed its willingness to do its share to help resolve harmful interference to public safety and other services in the 800 MHz band. Boeing has acknowledged that it will likely need to retune many of its radios in the band. Boeing has stated its willingness to shoulder this burden because of the overwhelming importance of public safety communication services, particularly in this period of heightened domestic security, particularly along our international borders.

Other B/ILT licensees have expressed similar willingness to take affirmative measures to help resolve harmful interference in the 800 MHz band. Boeing does not believe, however, that

<sup>&</sup>lt;sup>6</sup> See id. at 8-9

800 MHz licensees – most of whom had no part in creating the problem – should be required to participate in a defective plan to reengineer not only the 800 MHz band, but also the 700 MHz, 900 MHz, and 1.9 GHz bands. Even if the Consensus Parties' Plan was implemented in full – which, in light of the speculative funding, seems highly unlikely – public safety will still face harmful interference in the 800 MHz band. The Consensus Parties' proposal therefore seems to have only one potential beneficiary, and it is Nextel, not the public safety sector.

Boeing is far from alone in raising these issues. Instead, the Supplemental Comments of the vast majority of 800 MHz licensees are uniform on the following issues:

#### **Relocation Coordination Committee**

The Supplemental Commenters uniformly agree that the Consensus Plan is unnecessarily complex, requiring multiple relocations by licensees, some of them into more difficult spectrum sharing conditions than they currently experience. Of particular concern is the Plan's reliance on a non-public and likely unlawful Relocation Coordination Committee, using inadequate (or non-existent) procedural safeguards.<sup>7</sup> The Commission cannot abdicate its statutory authority by adopting the Consensus Parties' Plan in concept and by leaving the critical details to a private committee that could easily be dominated by self-interested parties.

#### **Questionable Funding**

The vast majority of the Supplemental Commenters noted the obvious problems with Nextel's illusory offer of transitional funding. Not only do valid questions exist about the adequacy of the funding amount, but also whether – once the process has started – any means

<sup>&</sup>lt;sup>7</sup> See Ameren Corp. at 12-13; American Electric Power Co. at 9-13; Baltimore at 6; Carolina Power and Light Co. et al. at 7-8; Cinergy Corp. at 16-32; Consolidated Edison Co. at 12-15; Consumers Energy Co. at 23-26; East Bay Municipal Utility District at 9-10; Entergy Corp. at 12-20; Florida at 4; Mobile Relay Associates at 6-7, 15-16; NAM MRFAC at 6, 11, 12-15; NARUC at 2; NRECA 12-13; City of Philadelphia at 5-7; Preferred Communication Systems at 13; Public Safety Improvement Coalition at 6-9; Snohomish Co. at 2; Southern LINC at 9-30, 33-34; United Telecom Council at 2-9.

will exist to force Nextel to provide funding beyond its initial \$25 million.<sup>8</sup> As a result, the complex rebanding of the 800 MHz, 700 MHz, 900 MHz, and 1.9 GHz bands would likely stall in the early stages. Many licensees would be left in an untenable position (with some operating in new bands, while others remain in old spectrum), resulting in calls to Congress to bail out what this proceeding started.

## **Inadequate Interference Mitigation Solution**

Even if the Consensus Plan is completed, it will leave many licensees in a potentially worse position than when they started. This unfavorable outcome would be particularly difficult for public safety services, which, as noted by many commenters, will still suffer harmful interference in the 800 MHz band under the Consensus Parties' approach.

#### **Excessive Disclosures of Information**

Of particular concern to both private licensees and public safety services are the Consensus Plan's excessive and unnecessary requirements for disclosure of proprietary and otherwise sensitive information.<sup>10</sup> Release of such information could be used to undermine the security of public safety, critical infrastructure, and highly sensitive industrial operations (such as Boeing's work for U.S. Government agencies).

<sup>&</sup>lt;sup>8</sup> See ALLTel, et al. at 10-13; Ameren Corp. at 3-5; Baltimore at 3-4; Bloomston, et al. at 2-4; Border Area Coalition at 12-14; Cinergy Corp. at 44-48; Consolidated Edison Co. at 18; Consumers Energy Co. at 19-22; CTIA at 8-11; East Bay Municipal Utility Dist. at 6-8; Entergy Corp. at 23-26; Florida at 1-2; Harbor Wireless, LLC at 7-11; Michigan at 3; Mobile Relay Assoc. at 4-6; Motorola at 21-23; NAM MRFAC at 4-5; NARUC at 15-16; New York City at 5-6; NRECA at 15-16; City of Philadelphia at 1-5; Preferred Communication Systems at 7-10; Public Safety Improvement Coalition at 2-6; San Diego City & Co. at 12-14; Small Business in Telecommunications at 2-7; Snohomish Co. at 2; Southern LINC at 5-9; UTAM, Inc. at 3-4; Verizon Wireless at 9-11.

<sup>&</sup>lt;sup>9</sup> See ALLTel et al. at 3-5; NARUC at 6; New York City at 7-8; NRECA 6; Michigan Dept. of Information Technology at 6; Verizon Wireless at 3-7.

<sup>&</sup>lt;sup>10</sup> See American Electric Power Co. at 13; Cinergy Corp. at 33-35; Michigan Dept. of Information Technology at 6-7; NRECA 3; Southern LINC at 30-32.

### **Disruptive Freeze on B/ILT Licensing**

Numerous commenters also brought attention to the damage that would result if the Commission placed a freeze on new B/ILT licenses in channels 121-400.<sup>11</sup> Such a freeze would prohibit companies from making necessary additions and improvements to their networks for years to come, potentially compromising productivity, competitiveness, and safety. Furthermore, a licensing freeze would be entirely unnecessary because the substantial uncertainty that has already been created by this proceeding will dissuade any B/ILT licensees from making further investments in their networks unless they are absolutely necessary.

### **Nextel's Demand for 1.9 GHz Spectrum**

Nextel put forth its Plan as an ultimatum – either it gets upfront nationwide access to 1.9 GHz spectrum, or its "contingent" offer of compensation will be withdrawn. Numerous 800 MHz licensees raised concerns about Nextel's proposed spectrum grab. As one commenter explained, the Consensus Plan would result in a major windfall of spectrum for Nextel because it would "replace' a patchwork of significantly less valuable, non-nationwide, non-contiguous and often encumbered spectrum holdings with a valuable nationwide PCS license." As explained by another party –a regional SMR with no apparent interest in the 1.9 GHz band:

it is apparent that the primary objective is for Nextel to acquire the 1.9 GHz band in exchange for less desirable spectrum at the least expensive means possible. . . . We agree that Nextel should be made whole if they lose spectrum, and [the] best way to accomplish this is not to require that they give up their 700 MHz and 900 MHz holdings in the first place. 14

<sup>&</sup>lt;sup>11</sup> See Cinergy Corp. at 13-15; Consumers Energy Co. at 12-18; East Bay Municipal Utility District at 8-9; Entergy Corp. at 27; Motorola at 4-6; NAM MRFAC at 7-8; NARUC at 14; NRECA 14.

<sup>&</sup>lt;sup>12</sup> Supplemental Filing at 4 n.6 & 6; Nextel White Paper at 40 n.52 (Nov. 21, 2001).

<sup>&</sup>lt;sup>13</sup> Access Spectrum at 11-12. Boeing endorses access Spectrum's comments, save for its proposed auction discount vouchers, which would be of little value to most 800 MHz licensees.

<sup>&</sup>lt;sup>14</sup> Palomar Communications Inc. at 2.

Instead, the 800 MHz public safety interference problem can be resolved entirely within the 800 MHz band without disrupting spectrum users in other frequency bands. Preferable approaches to accomplish this are abundant in the filings that have been submitted to the Commission.

## **Availability of Better Solutions**

Other, less complex and less disruptive solutions to 800 MHz interference have been provided by the commenters in this proceeding and should be explored further by the Commission, such as technical adjustments in the operating parameters of Nextel and other SMR licensees in the band. Although Boeing does not agree with every alternative solution raised by 800 MHz licensees in their Supplemental Comments, clearly numerous less disruptive and arguably more effective solutions have been presented.

It is conceded that proponents of these alternative proposals have not campaigned as aggressively as Nextel in support of their respective approaches. The fact that 800 MHz licensees have been less vocal about alternative choices, however, does not make those choices less attractive or well suited to meet the Commission's goals. Furthermore, as pointed out by the City of Philadelphia, in light of the many years that would be necessary to implement the Consensus Plan, some interim measures – such as requiring Nextel and others to do a better job of mitigating public safety interference on a case by case basis – should be enforced immediately by the Commission no matter what overall solution is adopted.<sup>16</sup>

<sup>&</sup>lt;sup>15</sup> See Access Spectrum at 3-7; ALLTel et al. at 18-19; Ameren Corp. at 14-15; American Electric Power Co. at 9, 17-18; Baltimore at 2-3; Border Area Coalition at 17-19; Carolina Power and Light Co. et al. at 1-6; Cinergy Corp. at 6; Consolidated Edison Co. at 5-9; Consumers Energy Co. at 4-6; CTIA at 5-8, 11-14; Entergy Corp. at 30; NAM MRFAC at 11; NARUC at 7; NRECA 7-8; Michigan Dept. of Information Technology at 7; Mobile Relay Associates at 8-9; Palomar Communications Inc. at 2; City of Philadelphia at 8-9; Pinnacle West Capital Corp. and Arizona Public Service Co. at 11-33; Small Business in Telecommunications at 8-10; Southern LINC at 2-5; United Telecom Council at 13-17; UTAM, Inc. at 2-3; Verizon Wireless at 14-16.

<sup>&</sup>lt;sup>16</sup> See City of Philadelphia at 8-9.

### **International Border Regions**

Boeing's strongest concern in this proceeding is the lack of attention that has been given to the 800 MHz problem in the Canadian (and Mexican) border regions. Boeing has repeatedly raised this concern in discussions with the so-called Consensus Parties and other groups reportedly working to develop feasible solutions. In response, the Supplemental Filing attempts to address the border region problem, but the Consensus Parties' handling of this complex issue is still fundamentally flawed.

In order to support the important public interest goal of Homeland Security, any solution for 800 MHz interference must strongly support public safety communications services in the border regions. Along with the Border Area Coalition, at least fifteen parties filed Supplemental Comments that raised concerns about the defective provisions proposed for the border regions, highlighting the double border problems that would result,<sup>17</sup> the inappropriate elimination of B/ILT and NPSPAC channels, <sup>18</sup> the inadequate guard bands, <sup>19</sup> and other critical issues. <sup>20</sup>

#### **Double Border Coordination Concern**

The Supplemental Filing proposes a rebanding plan for each border region that is different from the rest of the United States and, in most cases, is different from border region to border region. As a result, coordination would be necessary at two borders in the north and at two borders in the south. For example, northern border region licensees such as Boeing are already required to coordinate their operations with spectrum users in Canada. Under the

<sup>17</sup> See Border Area Coalition at 4-5; King Co. at 3-4; NRECA at 4; Palomar Communications Inc. at 6-7; Peak Relay Inc. at 4; Pinnacle West Capital Corp. and Arizona Public Service Co. at 4-5; Snohomish Co. at 3.

<sup>&</sup>lt;sup>18</sup> See American Electric Power Co. at 15-16; Border Area Coalition at 6-8; Consumers Energy Co. at 11; San Diego City and Co. at 2-4; Maine Power Co. at 3; Peak Relay Inc. at 4.

<sup>&</sup>lt;sup>19</sup> See Border Area Coalition at 8-10; Cascade Two-Way Radio at 3; Snohomish Co. at 3.

Consensus Parties' Plan, these border region licensees will also be forced to coordinate their spectrum use with new low-site CMRS spectrum uses just south of Line A (south of the Canadian border region).

## Loss of B/ILT and NPSPAC Channels

The second major problem with the rebanding proposed for the border regions is that it greatly reduces the number of channels assigned to B/ILT and NPSPAC, primarily to the benefit of SMR licensees. Furthermore, the new channel assignments for B/ILT licensees would be far less desirable than the channels that they would surrender. Although this disproportionate treatment is obvious on its face, Nextel inexplicably claims in its Supplemental Comments that "[n]o current primary border area licensee will lose any channels due to realignment." As a result of this grossly disproportionate treatment, Boeing and other B/ILT licensees in Border Region 5 (the Pacific Northwest) would likely lack sufficient channels to maintain their current operations and would have no room for growth or improvement of their networks.

## Lack of Necessary Guard Band

The third major problem with the Consensus Plan is that it makes no provision for guard bands in the Canadian border region and provides inadequate guard bands along the Mexican border as well. In contrast, the Consensus Plan acknowledged the need for a guard band of 2 MHz in the rest of the United States.

In light of the significant opposition that has been expressed regarding the Consensus Parties' treatment of the border regions, Boeing reiterates its recommendation that the Commission should first focus on developing a plan for resolving harmful interference in all

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<sup>&</sup>lt;sup>20</sup> See Border Area Coalition at 14-17; Consumers Energy Co. at 4-7; Maine Power Co. at 4-6; Michigan Dept. of Information Technology at 5; New York State at 1-7; Palomar Communications Inc. at 4-6; Peak Relay Inc. at 4-5, see also Public Safety Improvement Coalition at 9.

<sup>&</sup>lt;sup>21</sup> Nextel Communications, Inc. at 3.

border regions.<sup>22</sup> Once a viable approach for the border regions is identified, that approach could then be applied with relative ease in the rest of the country. Obviously, the creation of a harmonized plan for the entire United States would necessitate renegotiating bilateral spectrum sharing agreements with Canada and Mexico. Such a process must be completed, however, before any attempt is made to implement a rebanding solution for 800 MHz licensees.

Most importantly, the Commission should resist calls for a rush to judgment. In the reams of paper that have been filed in this docket, numerous proposals have been made that would be more effective in resolving harmful interference and less disruptive to licensed spectrum users than the Consensus Parties' proposal. The Commission should examine further these alternative proposals, particularly those that focus on resolving individual cases of harmful interference without attempting grandiose relocations of entire classes of spectrum users.

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<sup>&</sup>lt;sup>22</sup> See also King Co. at 3-4 (observing that "by tackling the complex border areas at the start of the process, there will be a higher likelihood of national success as the migration process spreads across the country"); NPSAC Region 43 Regional Review Committee (same).